

FIG. 2

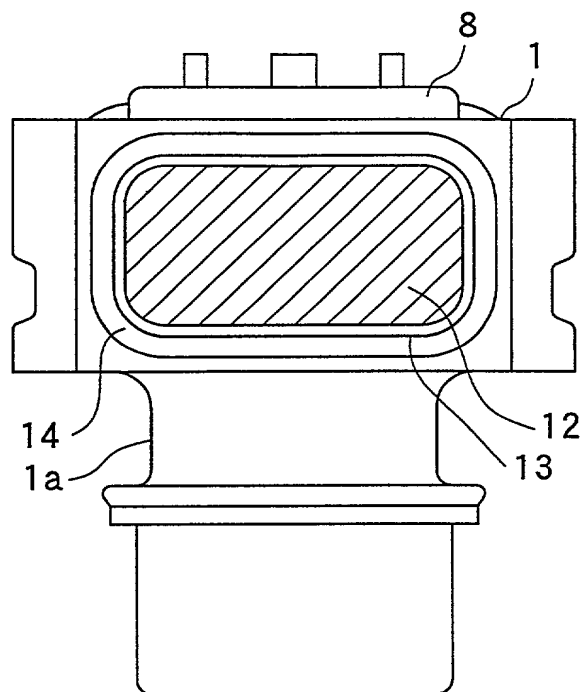


FIG. 3

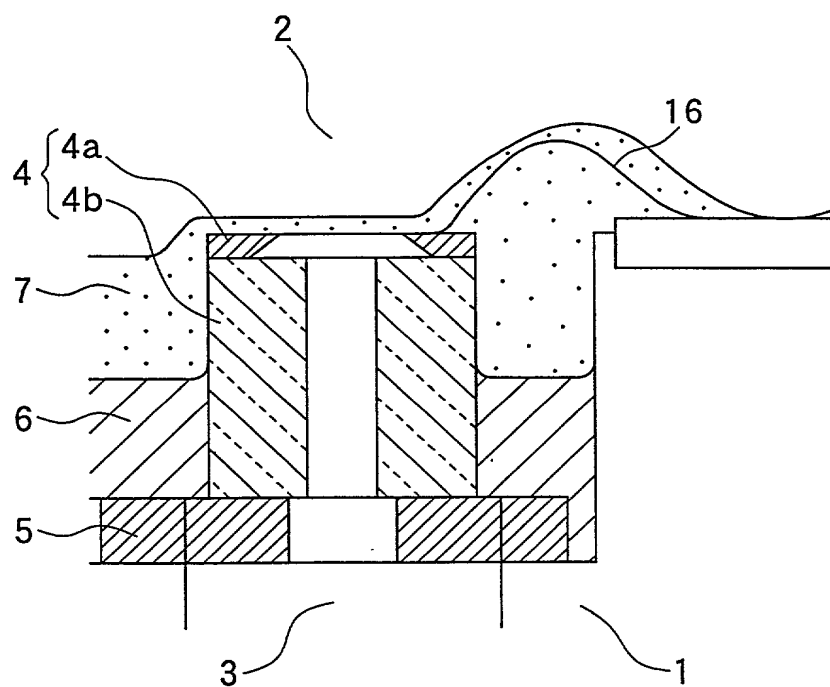


FIG. 4A

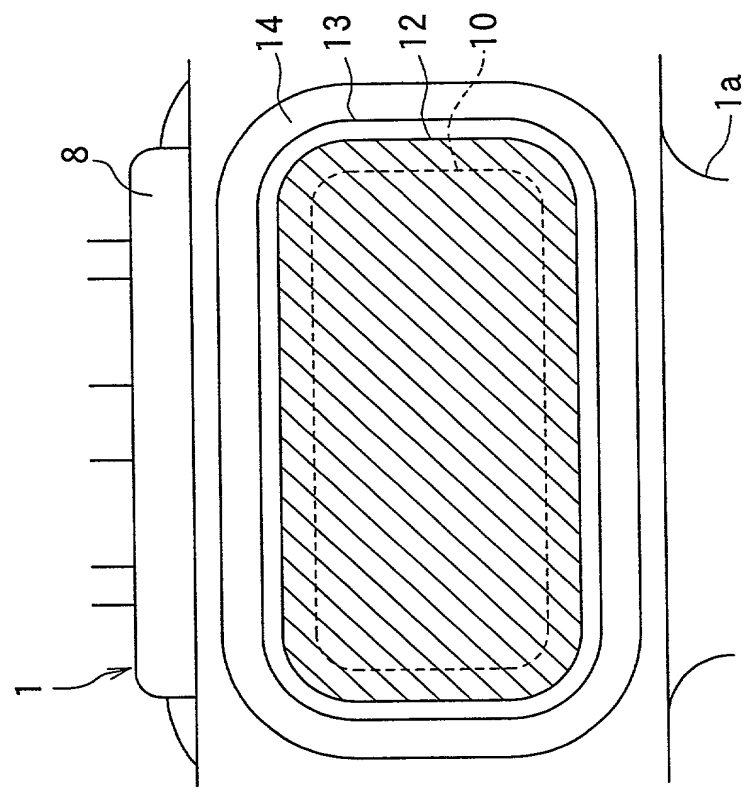
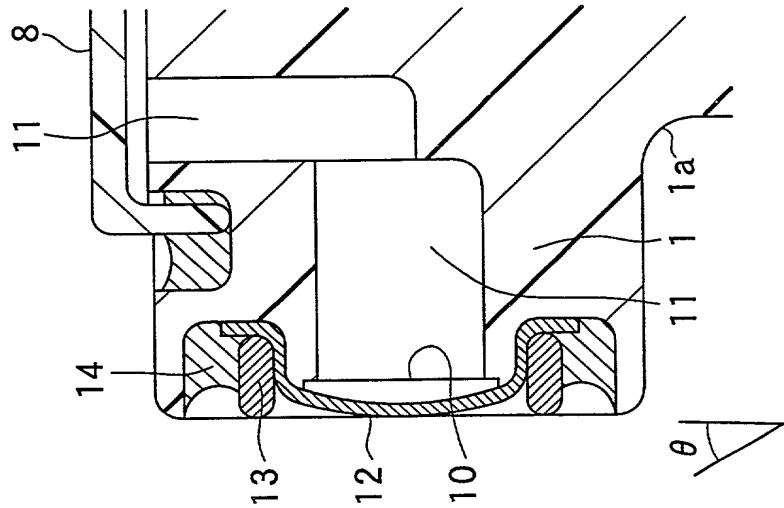


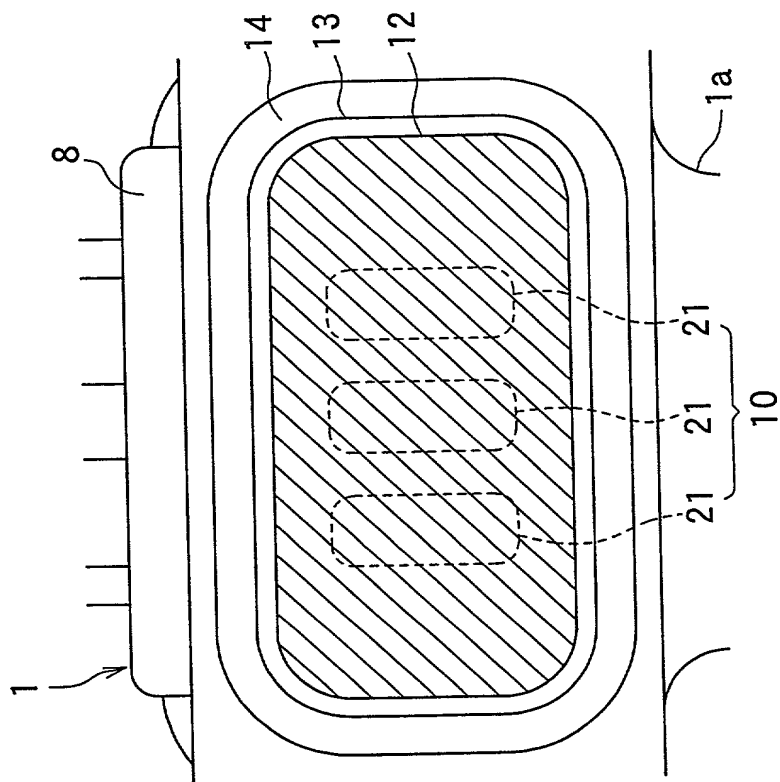
FIG. 4B



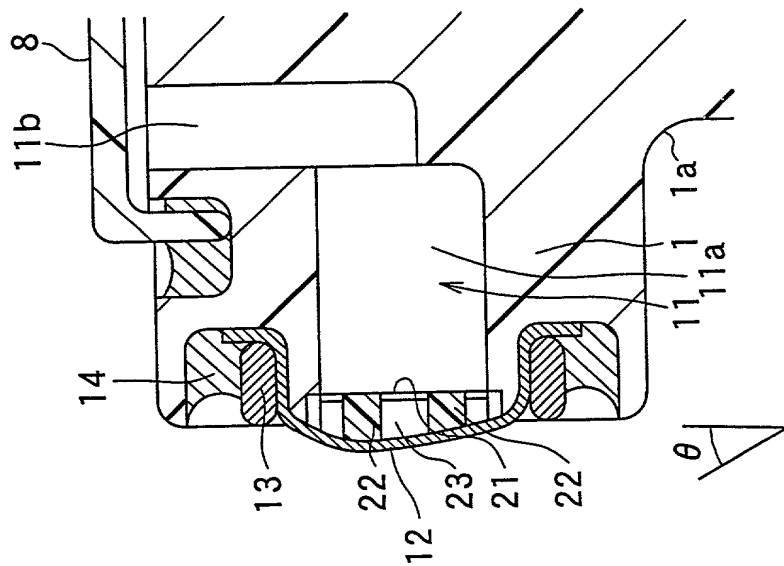
[illegible]

A detailed cross-sectional diagram of a semiconductor device 100a. The device features a substrate 1 with a central trench 1a and side trenches 1b. A gate stack is formed over the substrate, consisting of layers 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, and 18. A contact plug 15 is located within the trench 1a. Various other components are labeled with numbers 1 through 23.

A detailed cross-sectional diagram of a semiconductor device 100a. The device features a substrate 1 with two trenches, 1a and 1b. A gate stack is formed over the substrate, consisting of layers 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, and 18. A contact plug 15 is located within trench 1a. Various other components are labeled with numbers 1 through 23.



**FIG. 7A**



**FIG. 7B**

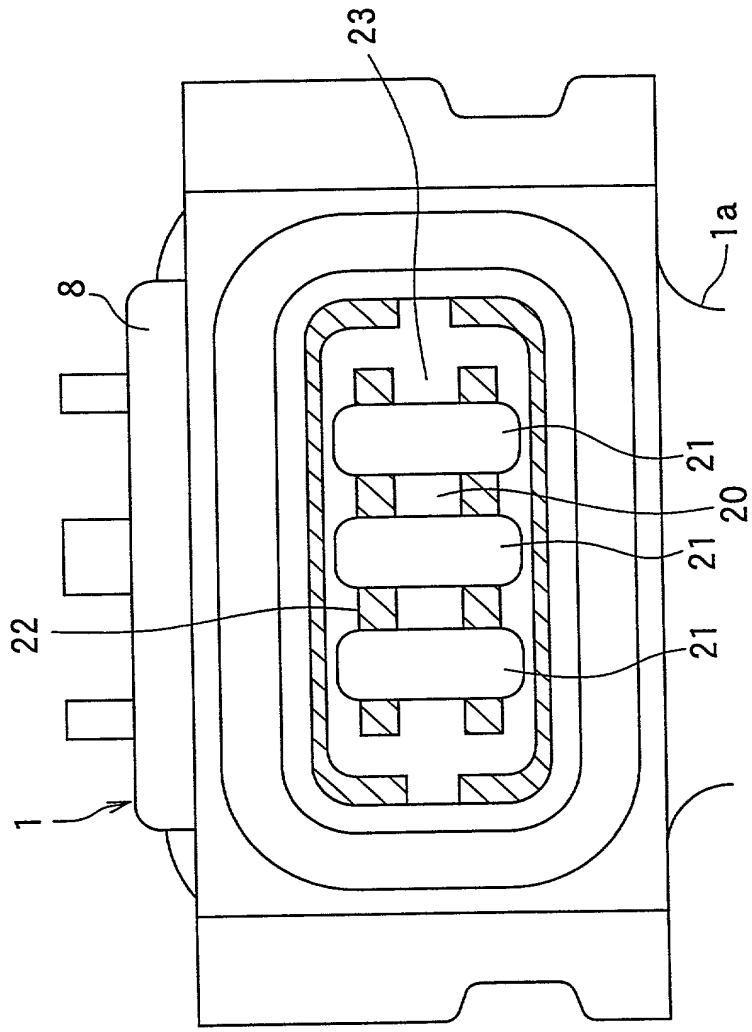


FIG. 9

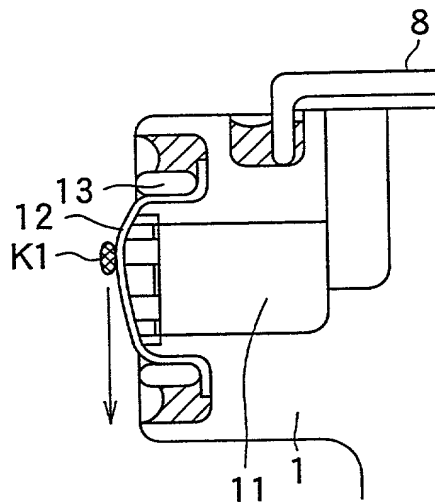


FIG. 10

